

# CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

## FOR INTERNALLY MANAGED GLOBAL ENHANCED EQUITY STRATEGIES

~~November 17, 2008~~ April 17, 2009

*This Policy is effective immediately upon adoption and supersedes all previous Internally Managed Global Enhanced Equity Strategies investment policies.*

### I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS' overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy ("Policy") for the Global Enhanced Equity Strategies - Internally Managed ("Strategies"). The design of this Policy ensures that investors, managers, consultants, and other participants selected by the California Public Employees' Retirement System ("CalPERS") take prudent and careful action while managing the Strategies. Additionally, use of this Policy assures sufficient flexibility in managing investment risks and returns associated with the Strategies.

### II. STRATEGIC OBJECTIVE

The strategic objective of the Strategies is to diversify the global equity segment through risk-controlled, value-added strategies with a low correlation of returns to CalPERS' other active and [passive investments](#).

The Strategies shall be managed to accomplish the following:

- A. Enhance CalPERS' total return;
- B. Hedge against active (pre-retirement) liabilities; and,
- C. Provide diversification to CalPERS' overall investment program.

### III. RESPONSIBILITIES

- A. CalPERS' Investment Staff ("Staff") is responsible for the following:
  - 1. All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate ~~benchmark~~ benchmark(s).

2. Reporting internally to senior management concerning the implementation of this Policy. The Staff's report shall be prepared monthly and shall include, but not be limited to the following:
    - a. Current market value of the strategies;
    - b. Performance of the strategies versus the benchmark(s) as reported by the master custodian; and,
    - c. [Performance attribution](#) analysis that attributes return to its causes.
  3. Reporting to the Committee as needed about the performance of the Strategies. The General Pension Consultant is responsible for reporting quarterly to the Committee, as described in section III.B.
  4. Monitoring the implementation of, and compliance with, the Policy. Staff shall report material concerns, problems, changes, and all violations of Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action.
  5. Purchasing only those securities that are outlined in the Policy.
- B. The General Pension Consultant ("Consultant") is responsible for:
- Monitoring, evaluating, and reporting quarterly, to the Committee, on the performance of the Strategies relative to the benchmark(s) and policy. The Consultant is responsible for reporting any non-compliance issues in accordance with its responsibilities under its contract with CalPERS.

#### IV. PERFORMANCE OBJECTIVE AND BENCHMARK

Enhancing the return of a portion of the Internally Managed Global Equity Index Funds is the performance objective of the Strategies. The performance objective shall be accomplished by seeking to maximize a portfolio's active return within a specified [active risk](#) level.

Independent sources are responsible for maintaining the benchmark(s) as well as calculating and reporting the return of the benchmark(s) to CalPERS.

A. Domestic Quantitative Factor Model:

The benchmark for the ~~Fund-Strategy~~ shall be entitled the "CalPERS Custom Wilshire 2500 Index" ~~CalPERS Custom Dow Jones Wilshire 2500~~

Index". This custom benchmark shall be constructed and maintained by Wilshire Associates. ~~It shall be defined as the top 2500 securities of the Dow Jones Wilshire 5000 (excluding tobacco stocks) with dividends reinvested, and be based on market capitalization and annual reconstitution. Its composition shall provide broad market exposure to the total U.S. equity market while minimizing transaction costs.~~

B. Fundamental Factor Model:

The benchmark for the domestic portion of the Strategy shall be entitled the "CalPERS Custom Wilshire 2500 Index" ~~CalPERS Custom Dow Jones Wilshire 2500 Index~~ described above. The benchmark for the developed markets, international portion of the Strategy shall be entitled the "CalPERS Financial Times Stock Exchange (FTSE) All World, Developed, ex US, ~~ex Tobacco~~, Capitalization Weighted Index". Finally, the benchmark for the emerging markets portion of the strategy shall be the "CalPERS FTSE All World Emerging, Capitalization Weighted Index". Both the developed markets international and emerging markets benchmarks shall be constructed and maintained by CalPERS' international benchmark provider, FTSE.

C. Country-Tiered Emerging Markets:

The benchmark for the Strategy shall be the "CalPERS FTSE All World Emerging, Capitalization Weighted Index".

C.D. Synthetic Enhanced Equity:

The benchmark for the Fund Strategy shall be the Standard & Poors 500 index, ~~a mainstream domestic equity benchmark consisting of the top 500 securities in the United States equity market by capitalization.~~

## V. INVESTMENT APPROACH AND PARAMETERS

A. Investment Approach (Domestic Quantitative Factor Model)

The Domestic Quantitative Factor Model portfolio is an active strategy utilizing statistical techniques to define common market factors forming excess return forecasts. To achieve the stated performance objective, the Strategy uses four components in the active equity investment process: Stock Selection, Risk Control, Transaction Cost Control, and Portfolio Construction. The four components are described as follows:

## 1. Stock Selection

The Strategy uses a quantitative stock selection model to estimate the expected relative return of all stocks within the stock selection universe. The stock selection universe shall be the ~~Dow Jones~~ Wilshire 5000 Index. The stock selection strategy shall diversify across many different types of factors to avoid heavy reliance on any one source of returns should a factor underperform for an extended period. The expected [factor returns](#) in the stock selection strategies shall adapt over time with the realized factor returns.

## 2. Risk Control

The initial target level of risk in the [active portfolio](#) shall be 50 basis points above the base level of active risk in the set of instruments used to mimic the Benchmark. The maximum target level of risk in the active portfolio shall be 300 basis points above the base level of active risk in the set of instruments used to mimic the Benchmark.

The level of exposure to [common factors](#) associated with undesirable risk in the active portfolio shall be minimized by applying an increasing penalty to such exposures. Holding a large number of stocks shall diversify the level of [specific risk](#) in the active portfolio. Additionally, the percentage weight of any stock in the active portfolio shall be constrained to be less than  $\pm 2\%$  to further control the specific risk of individual stock positions.

## 3. Transaction Cost Control and Trading Activity

A model of the fixed and variable transaction costs shall be used to offset expected returns by the costs of trading. As a result of such action, the amount of portfolio turnover shall be determined within the [optimization](#) process. The forecast of trading cost for each stock shall be based on its bid/ask spread, historical volume and volatility, and the market center in which it is traded.

The Strategy shall use a variety of trading techniques and liquidity sources to obtain best execution of the trade list.

## 4. Portfolio Construction

At least monthly, an optimization process shall be performed. The optimization process shall ensure that valuable, time-sensitive stock selection information is implemented in a timely manner and that the portfolio risk characteristics are adequately controlled.

CalPERS shall continually monitor and improve the estimates for expected returns, risks, and transaction costs in order to maximize the actual value added to the Strategy from the active investment process.

B. Investment Approach (Fundamental Factor Model)

The Fundamental Weighting Model portfolio is a strategy utilizing company-specific accounting measures to determine security weights. To achieve the stated performance objective, the Strategies use three components in the active equity investment process: Stock Selection, Risk Control, and Portfolio Construction. The three components are described as follows:

1. Stock Selection

Portfolios managed utilizing fundamental factors shall have security weights derived from parameters measuring a company's business success. The specific parameters and method of calculation of security weights shall evolve over time, dependent on the efficacy of the model.

2. Risk Control

The expected tracking variance of fundamental factor based portfolios versus market capitalization benchmarks is currently approximately 400 basis points. The mechanism for monitoring and controlling tracking variance within expectations shall be described within the Strategy's procedures manual.

3. Portfolio Construction

The applied portfolio construction method shall vary as the fundamental factor strategy is deployed in different market segments. Data in the form of fundamental factor based security universes and weights shall be obtained from Research Affiliates LLC ("RALLC") and FTSE. This data shall represent the raw information underlying the portfolio construction process.

The Strategy shall use discrete portfolios in the domestic, developed and international, and emerging markets regions. This division is in recognition of the different benchmarks CalPERS applies to these segments and also to facilitate maintenance of the domestic / international developed / emerging markets global equity asset allocation.

Where a portfolio resulting from an approximate replication of the fundamental factor derived weights provides an acceptable expected tracking variance, this shall be the construction method utilized. Should a replication of the fundamental factor weights result in expected tracking variance exceeding anticipated levels, alternate portfolio construction methods such as [sampling](#) and optimization shall be used to control the expected tracking variance.

C. Investment Approach (Country-Tiered Emerging Markets)

The objective of the country-tiered emerging markets model is to deliver above benchmark investment performance in a highly risk-controlled framework. The underlying premise of the model is a framework which allows one to capture the inherent tendency for emerging markets to mean revert. The nature of emerging markets, namely high volatility of returns and low correlation between markets, provides the key ingredients to this type of structured strategy.

1. Stock Selection

The model's active selection occurs at the country level, with constituent securities being capitalization-weighted within the countries. As such, the model does not explicitly pick stocks, with active stock weights being the implicit result of the active country weighting.

The country selection model is comprised of five factors, which are used to determine the relative country weights of the Strategy. The factors are: market size (capitalization), liquidity (average daily trading volume, transaction costs), stage of economic development (economic, social and political convergence to developed market norms), operational risk (trading, settlement and regulatory risks), and portfolio risk (volatility and correlation). Aggregate country scores are compiled based on each of these metrics and the countries are then placed into equal weighted tiers with other markets that achieve similar scores.

The model blends two different approaches to rebalancing in order to effectively capture the mean reversion. The first is standard periodic rebalancing, conducted annually coincident with the annual factor review to ensure that the target and portfolio weights reflect the current model view. In addition, a trigger-based rebalancing mechanism ensures that any significant deviations from target

weights are exploited on an interim basis between annual rebalances.

## 2. Risk Control

The expected tracking variance of the country-tiered emerging markets strategy versus its market capitalization weighted benchmark is currently approximately 250 basis points. The mechanism for monitoring and controlling tracking variance within expectations shall be described within the Strategy's procedures manual.

## 3. Portfolio Construction

Information underlying the country-tiered emerging markets strategy is currently being purchased from GP Analytics. Over time, however, the model construction shall migrate from being calculated externally to being calculated internally. All inputs to the model calculation are publicly available and relatively easily obtained and combined.

The portfolio shall be managed in common with the resources and infrastructure utilized in the management of the other mainstream internally-managed equity strategies. This includes an automated data aggregation engine, portfolio optimization software, electronic trade transmission, and straight-through processing of operations and settlement.

## D. Investment Approach (Synthetic Enhanced Equity)

### 1. Portfolio Lifetime

The sStrategy will be funded with a finite expected life, and only in the event that the short term fixed income markets provide a competitive opportunity. The value added of the sStrategy comes from the difference in financing rates between what can be earned on the cash invested and the implied rate priced into the futures contracts. As opportunities present themselves in the short term fixed income markets, and only upon the Investment Committee's approval, the sStrategy will be implemented and will remain in place as long as the opportunity remains. At the point that actual and implied financing rates are no longer exploitable, the portfolio will be wound down, to be funded again when the opportunity presents itself.

### 2. Risk Control



The fixed income instruments held in the portfolio shall be priced and equitized daily using standard pricing sources. The equity derivatives held in the portfolio shall be standard, liquid, exchange traded products based on mainstream equity indices. The portfolio shall not employ leverage.

### 3. Portfolio Construction

The portfolio shall consist of short term fixed income instruments, managed in accordance with the Statement of Investment Policy for Low Duration Fixed Income Program and equitized with S & P 500 futures contracts managed in accordance with the Statement of Investment Policy for Development of Derivatives Strategies. CalPERS Global Fixed Income shall be responsible for constructing the underlying cash vehicle with Global Equity responsible for the equitization portion of the strategy. The two groups shall remain in ongoing communication to ensure that pricing and equitization levels are maintained as expected.

#### DE. Specific Risk Parameters

Specific risk parameters shall limit the [return deviation](#) of the Strategy Portfolio(s) versus the benchmark(s). Use of a number of different models shall ensure that the risk parameters are within an acceptable tolerance level to achieve the performance objectives. Since CalPERS may add or eliminate models, the specific risk parameters for each model are detailed in the procedures manual(s).

Implementation of this program shall comply at all times with CalPERS' investment policies including, but not limited to, the following:

1. Emerging Equity Market Principles;
2. Statement of Investment Policy: Development of Derivatives Strategies; and
3. Global Proxy Voting Policyies.

#### DE. Restrictions

The Portfolios may not purchase the securities of primary tobacco companies as identified by the Investor Responsibility Research Center Tobacco Company List.

#### EG. Permissible Securities



1. Equity and associated securities of global publicly traded companies.
2. Derivatives, as detailed in Section VII.

#### FH. [Corporate Actions](#)

Corporate actions (e.g., [tender offers](#), [mergers](#), [Dutch-auctions](#), or [spin-offs](#)) shall be handled on a case-by-case basis.

Companies which offer discount [Dividend Reinvestment Programs](#) (DRIP) and similar programs will be analyzed to determine if return enhancement can be added by participating in such programs.

#### GI. Strategy Monitoring

A monthly reporting package shall be prepared for each strategy by the Internal Equity staff assigned to manage the strategy. The reports to be included shall be those needed and appropriate to allow monitoring by more senior Internal Equity staff of the management process, risk acceptance and performance of each strategy. This reporting package may vary depending on the management process, benchmark and performance objective unique to each strategy and shall be described in the procedures manual.

The Consultant shall include strategy level information in their quarterly report to the Committee.

### **VI.VI. CALCULATIONS AND COMPUTATIONS**

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS' [Custodian](#).

## VII. DERIVATIVES AND LEVERAGE POLICY

### A. Strategies

The Fund may utilize financial futures, equity swaps and options in the Portfolio for the following purposes:

1. Permitting the investment of dividends received;
2. Equitizing cash and dividends receivable;
3. Allowing adjustment of the Portfolio's risk characteristics in the most cost effective manner available; and,
4. Facilitating investment of cash flows related to contributions, withdrawals, or asset allocation compliance.

### B. Justification

Justification for the above mentioned strategies includes the following:

1. Reducing transaction costs in comparison to the purchase of underlying securities;
2. Equitizing non-spendable cash exposures (e.g. dividend accruals) to get a highly correlated return on that component of the Portfolio;
3. Providing the ability to alter risk characteristics versus the ~~benchmark~~benchmark(s) without disrupting the underlying Portfolio or unnecessarily increasing turnover; and,
4. Obtaining matched returns between the ~~benchmark~~benchmark(s) and the Portfolio through investment in custom equity swaps and currency forwards.

### C. Restrictions

Restrictions on the above mentioned strategies include the following:

1. Writing uncovered calls is prohibited;
2. Leveraging is prohibited. The use of futures contracts as specified in this Policy will not constitute leverage;

3. With the exception of equity swaps and currency forwards, trading non-exchange traded derivatives is prohibited;
4. [Speculating](#) is prohibited;
5. Use of non-[CFTC](#) approved futures contracts is prohibited; and
6. Portfolio specific position limits will be established and monitored as detailed in the applicable procedures manual.

#### **D. Permissible Derivatives**

Derivatives utilized in the index Portfolio may include, but are not limited to the following:

1. Index futures;
2. Style futures;
3. Index options;
4. Currency forwards;
5. Equity swaps;
6. [Exchange Traded Funds](#) (ETF); and
7. [Closed End Funds](#).

#### **E. Futures Commission Merchants (FCM)**

Futures Commission Merchants are selected with the following broad range of criteria:

1. Low cost clearing and executing charges;
2. Securely capitalized firm;
3. Clear account statements and efficient reconciliation;
4. Responsive personnel;
5. Discrete and efficient operation;
6. Personal interview; and
7. Reference checks.

## VIII. GLOSSARY OF TERMS

Key words used in this the policy are defined in CalPERS' Master Glossary of Terms.

### Domestic Enhanced Index Strategy – Internally Managed

Approved by the Policy Subcommittee: October 6, 2000

Adopted by the Investment Committee: February 20, 2001

Revised by the Policy Subcommittee: December 10, 2004

Approved by the Investment Committee: February 14, 2005

### Name Change to Global Enhanced Equity Strategies – Internally Managed

Revised by the Policy Subcommittee: February 10, 2005

Approved by the Investment Committee: March 13, 2006

### Name Change to Internally Managed Global Enhanced Equity Strategies

Revised by the Policy Subcommittee: March 17, 2008

Approved by the Investment Committee: April 21, 2008

Revised by the Policy Subcommittee: October 20, 2008

Approved by the Investment Committee: November 17, 2008

Revised by the Policy Subcommittee: April 17, 2009

Asset Class Glossary: Equities  
Policy: Internally Managed Global Enhanced Equity Strategies  
April 17, 2009

**Active Portfolio**

A portfolio that is managed with the expectation of earning investment returns in excess of those earned by its benchmark.

**Active Risk**

The difference in the volatility of the returns in an active portfolio relative to the portfolio's benchmark.

**Benchmark**

A set of securities with associated weights that provides a passive representation of a market segment. A benchmark's return is often used as a comparative measure of a manager's performance results in an active portfolio.

**CalPERS Custom ~~Dow Jones~~ Wilshire 2500 Index**

The ~~Dow Jones~~ Wilshire 2500 Index, excluding tobacco stocks, and with dividends reinvested. The standard ~~Dow Jones~~ Wilshire 2500 comprises the top 2500 securities of the ~~Dow Jones~~ Wilshire 5000 Index, including Real Estate Investment Trusts and tobacco stocks, based on market capitalization, and is reconstituted annually. The ~~Dow Jones~~ Wilshire 5000 is an index that measures the performance of all U.S.-headquartered equity securities with readily available price data.

**Capitalization Weighted**

A weighting method based on the equity market capitalization of a stock. Market capitalization is calculated by multiplying the total outstanding shares of a stock by its price per share.

**Closed-end Funds**

These are mutual funds professionally managed by an investment company with a finite number of shares issued. Closed end funds may be considered to be a derivative instrument as a component of their unit valuation is derived from the underlying value of the investments held by the fund

**Commodities and Futures Trading Commission (CFTC)**

An agency of the U.S. federal government that regulates the U.S. commodity futures and options markets. The CFTC is responsible for insuring market integrity and protecting market participants against manipulation, abusive trading practices, and fraud.

**Common Factor**

An element of return that influences many securities and, hence, is a "common factor" in the returns on those securities. By virtue of their common influence on many stocks, common factors contribute to market return as well as residual returns of the stocks that

they influence most. Some common factors for domestic equity are capitalization, beta, price/earnings, price/book, interest sensitivity, and yield.

**Common Factor Return**

A portfolio's or individual asset's return component that is attributable to exposure to a particular common factor. This is derived from the unique return attributed to the common factor

**Corporate Actions**

An action taken by a company that causes a material change in structure including, but not limited to, name, price, shares, capitalization, or other such events. Typical corporate actions include tender offers, mergers, Dutch auctions, and spin-offs.

**Custodian**

A bank or other financial institution that provides custody or safe keeping of stock certificates and other assets of an institutional investor.

**Derivative**

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

**Dividend Reinvestment Program**

A plan offered by a corporation in which shareholders may purchase additional shares with cash dividends on the dividend payment date. Often times the additional shares are sold at a discount and are commission free.

**Dutch-Auction**

A system in which the price of an item is gradually lowered until it meets a responsive bid and is sold.

**Equitize**

Combining cash with derivative instruments to produce returns comparable to the equity market.

**Equity Swaps**

An agreement between two parties dictating a swap with payments on one or both sides, linked to the performance of equities or an equity index.

**Exchange Traded Fund**

An exchange-traded fund (ETF) is an investment company that is legally classified as an open-end company or a Unit Investment Trusts. An ETF is not classified as a mutual fund by the Securities and Exchange Commission because of limited redeemability. A typical ETF is similar to an index fund, and will invest in either all of the securities of a selected index or a representative sample of the securities included in the index. An

ETF may be considered to be a derivative instrument as a component of their unit valuation is derived from the underlying value of the investments held by the fund.

**Futures**

Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

**Leverage**

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

**Market Capitalization**

A stock's current market price multiplied by the current common shares outstanding.

**Merger**

The combination of two or more companies. Strictly speaking, only combinations in which one of the companies survives as a legal entity are called mergers.

**Optimization**

The best solution among all solutions available for consideration. Constraints on the investment problem limit the region of solutions that are considered and the objective function for the problem by capturing the investor's goals correctly, providing a criterion for comparing solutions to find the better ones. The optimal solution is the solution among those admissible for consideration that has the highest value of the objective function.

**Option**

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

**Passive Investment**

Investing in a manner that attempts to replicate the characteristics and performance of a market index or benchmark. In theory, passive investing/management assures investment performance is neither worse nor better than the market as a whole. In practice, actual results differ from the results reported for the index due to transactions costs and tracking error.

**Performance Attribution**

The process of attributing portfolio returns to causes. It decomposes past performance into separate components or factors contained within a multi-factor model.



**Reconstitution**

The periodic reformulation of a benchmark index which may entail the addition or deletion of securities along with changes to the parameters which determine the relative weight of included assets.

**Return Deviation**

The difference between the total return of a portfolio and the total return of the benchmark index.

**Sampling**

A method of indexation whereby a representative sample of the index constituents, rather than every share in the index, are purchased.

**Specific Risk**

The component of total risk that is unique or idiosyncratic to an individual security.

**Speculation**

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.

**Spin Offs**

Companies which are created by separation from another company and begin to trade publicly on their own.

**Tender Offer**

A public offer to buy all or a portion of a specific security for cash, other securities, or both.

**Uncovered Calls**

A strategy in which an investor writes (sells) call options on the open market without owning the underlying security. This stands in contrast to a covered call strategy, where the investor owns the security shares that are eligible to be sold under the options contract.

**Variance**

A statistical term for the variability of a random variable about its mean. The variance is defined as the sum of the squares of the deviation from the mean.